



Powerblock S-150

User manual

ENGLISH



References

THIS MANUAL:

Part Number: 99-0702-22

First printing: february 2022

Revision: february 2022 – Ver. 1.0

Information in this publication supersedes the previously published manuals referred to the same product unless specifically written.

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Product information:

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For product sold by others do contact the reseller in your area.

Notice:

Audio Solution reserves the right to make improvements in the product described in this manual at any time and without notice.

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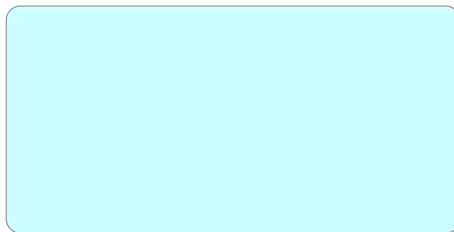
INDICE

ENGLISH-----	1
Generality-----	4
Technical specifications-----	5
Links-----	6
LCD Display Setting-----	10
Installation Notes-----	12
Diagnostic-----	13
Safety rules-----	14
Product Warranty-----	15

IMPORTANT

In order to make the best possible use of your AudioSolution device and to work in absolute safety, it is essential to read this manual, to which you can refer in the future.

SERIAL NUMBER



This is the serial number of the product, it identifies your amplifier and is recorded in the AudioSolution archives.

We congratulate you on choosing an AudioSolution product.
The stabilizer you have purchased is a realization conceived by those who love music.

Powerblock S-150

is a stabilizer able to handle loads up to 150A (in music program) with distributor of integrated power supplies and the ability to monitor everything from the display

Product Overview

- 8 power positive terminals for cables from 1 to 35mmq
- 8 clamps per power mass for cables from 1 to 35mmq
- 3 +/-rem outputs for auxiliary elements with relative fuse and status LEDs
 - Remote power delay for amplifiers
 - Remote power delay for auxiliaries
- Management of 2 fans with temperature control and probes (supplied) and protected by fuse with status LEDs
 - Voltage stabilization up to 16V via internal trimmer
 - Remote display for feature control.
 - Amplifier and auxiliary fuses with LEDs to monitor status
- Trolley power terminal blocks for cables up to 35mmq (made in Italy).



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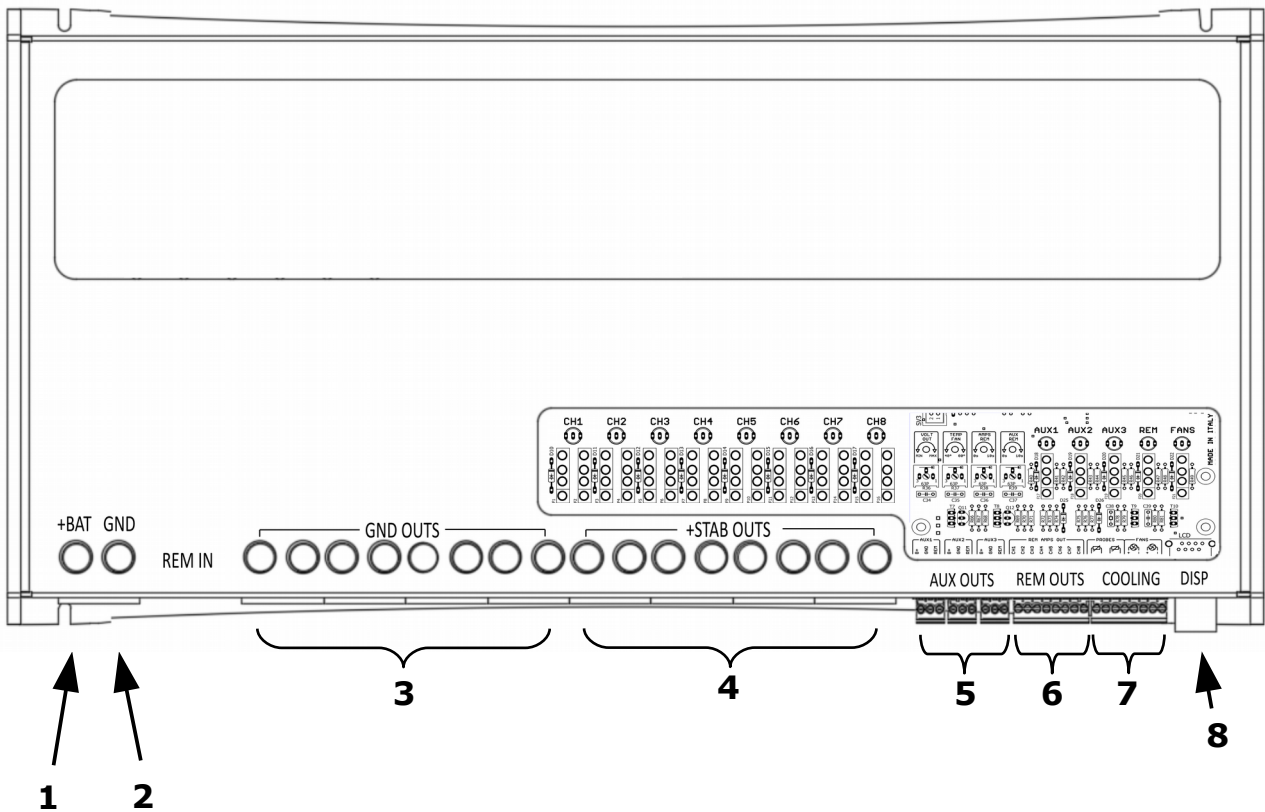
Technical specifications

Output voltage	16,5 Volt (max)
Output current (musical program)	150 Amp.
Output current max (impulse <1500ms)	300 Amp.
No load consumption	Up to 1,5 A
Overall efficiency	>75%
Max input voltage	10 - 17 Volt
External display for monitoring:	Voltage IN
	Voltage OUT
	Powerblock temperature
	Fan temperature
	Fan ON/OFF
	Remote delay settings
	Temperature selection (°C/Fahremnheit)
Over temperature protection	85° (+/- 5%)
Dimensions	Lung.=470mm – Larg.=230mm – Alt.=56mm
Weight	5,750 Kg
Working ambient temperature	0 - 60°

N.B. The data may vary without notice due to design adjustments or aesthetic changes.

GENERAL LINK

Fig.1



- 1 – Clamp to be connected to the positive (+BAT) of the battery.
- 2 – Clamp to be grounded (GND) of the system.
- 3 – Clamps for the connection of the masses (GND) for power users (amplifiers) and are all in parallel.
- 4 – Clamps for the connection of positives (+ stabilized) for power users (amplifiers).

Each output is protected by 2 fuses (in parallel), just above, in the center of these pairs of fuses, there is an LED that will be blue if at least one fuse is present and working, it will be fuchsia color if not present or interrupted.

- 5 – Terminal blocks for connecting auxiliary users (max 3A), see section "auxiliary connections".
- 6 – Terminals for the connection of the ignition consent (REMOTE) of power users (amplifiers).
- 7 – Terminals for connecting the controlled cooling system, see section "auxiliary connections".
- 9 – Connector for connecting the remote display

POWER CONNECTION:

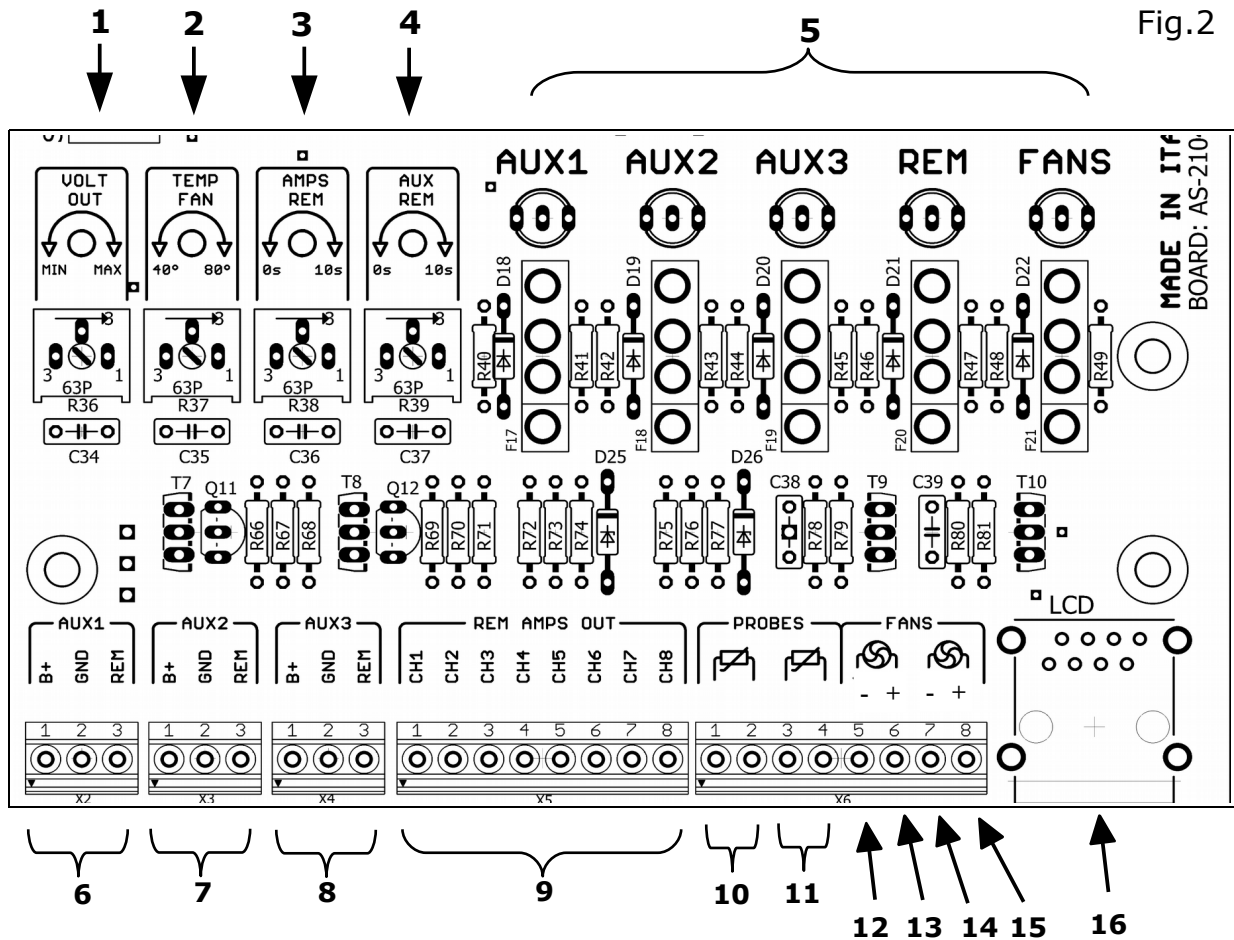
Following the instructions in the chapter "Cable selection", present in this manual, identify the section of the cable to be used and connect to the accumulator.

Near the positive pole, within 20-30cm of the accumulator, it is necessary to interpose a fuse of adequate flow rate and watertight (if the battery is housed in the engine compartment).

The ground connection, normally, takes place by connecting the "GND" clamp to the chassis of the car, when you perform this operation, make sure to find a safe and reliable ground point, if necessary, remove impurities, paint residues etc. to ensure the best possible contact.

AUXILIARY CONNECTIONS

Looking at the Powerblock S-150 from above, under the removable plexiglass, we find the screen printing the screen printing for the connections and trimmers for the various adjustments; the latter are active and working even without the connected display but, by connecting it, you have the most precise calibrations and the various functions are visible.



- 1 – Trimmer for adjusting the output voltage, which can be displayed on the display or, if the display is not used, place a tester set in DC between the positive and the negative in the power terminal blocks (see previous paragraph).
- 2 – Trimmer for temperature regulation that will activate the cooling fans. If the probes and fans are connected, they will activate at the set temperature (variation between 40 ° and 80 °).
- 3 – Trimmer for adjusting the ignition delay for power users (amplifiers), it is possible to delay the ignition up to 10 seconds.
- 4 – Trimmer for the adjustment of the ignition delay for auxiliary users (DSP, electronic cross-over etc.), it is possible to delay the ignition up to 10 seconds.
- 5 – LEDs and fuses for auxiliary users (AUX1 – AUX2 – AUX3) remotes (REM) and fans (FANS), each fuse has its own LED placed just above, the BLUE LED indicates that the fuse is present and working, the FUXIA color LED indicates that the fuse is not present or interrupted.

6 – Terminal block for the connection of the auxiliary user number 1, B+ is the positive terminal (stabilized voltage), GND is the terminal for the ground connection, REM is the terminal for the connection of the ignition consent, managed by the delay of the trimmer "AUX-REM".

7 - Terminal block for the connection of the auxiliary user number 2, B+ is the positive terminal (stabilized voltage), GND is the terminal for the ground connection, REM is the terminal for the connection of the ignition consent, managed by the delay of the trimmer "AUX-REM".

8 - Terminal block for the connection of the auxiliary user number 3, B+ is the positive terminal (stabilized voltage), GND is the terminal for the ground connection, REM is the terminal for the connection of the ignition consent, managed by the delay of the trimmer "AUX-REM".

9 – Terminal block for connecting the ignition consent for power users (amplifiers), are outputs in parallel and protected of the REM fuse.

10 – Terminals for connecting the thermal probe 1 (supplied)

11 – Terminals for connecting the thermal probe 2 (supplied)

12 – Negative clamp for fan 1

13 – Positive clamp for fan 1

14 – Negative clamp for fan 2

15 – Positive clamp for fan 2

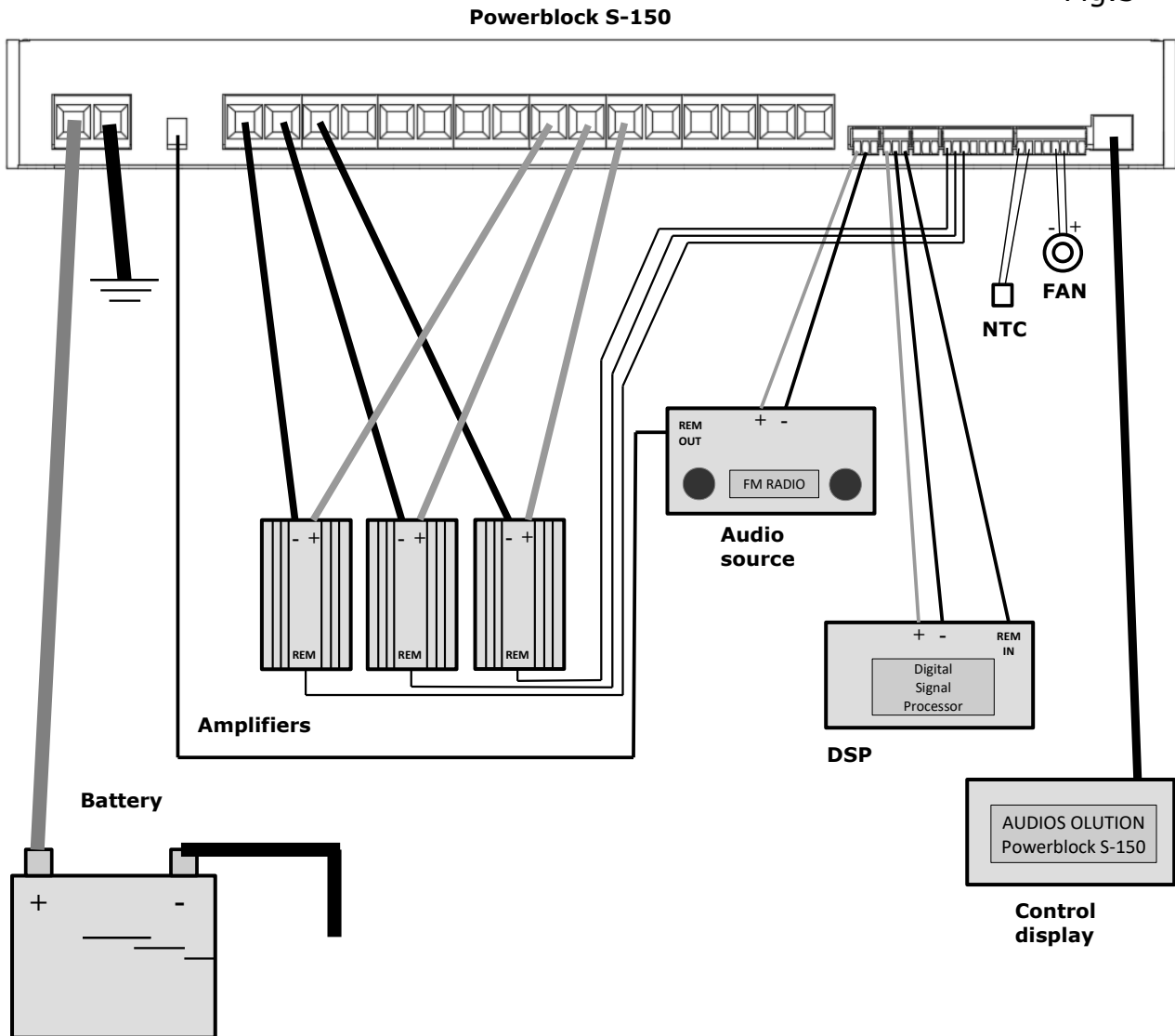
16 – Connector for connecting the remote display

Tips:

- To tighten the screws of the terminal block it is advisable to use a flat screwdriver of a suitable size.
- Do not use rope ends on cables, the trolley system tightens adequately even very fine cables.
- Check the correct fixing of the cables once the terminal blocks have been tightened.
- Fix the amplifier so you can access the adjustments once installed.
- Maintain a space of at least 5cm on the sides, near the slits, to allow the correct flow of air.

EXAMPLE WIRING DIAGRAM

Fig.3

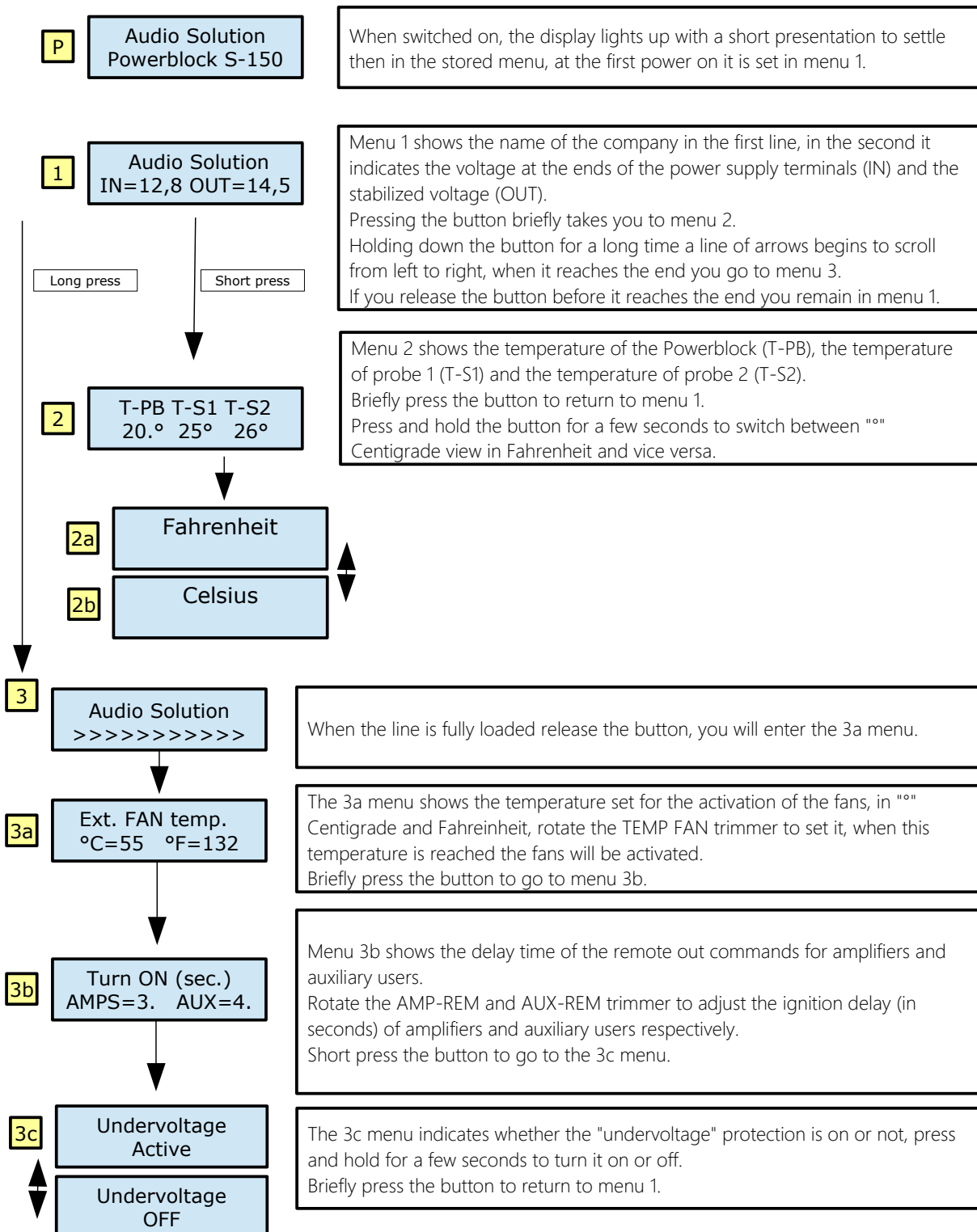


This example shows how to connect 3 amplifiers, a DSP and a source, the unused outputs can be left free, leave at least one fuse for each free output if you do not want fuchsia LEDs inside, you can obviously use all the outputs if you want to connect more amplifiers.

If external users absorb more than 3 Amperes, such as valve preamplifiers or other devices, it is possible to connect them on unused power outputs.

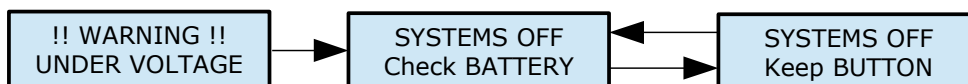
LCD Display Setting

The LCD display is controlled by the button located at the bottom right of the display, by pressing it, the display will pass sequentially in the various menus. On the left we see the number of the menu (P means Presentation), then what appears in the display and then the description.



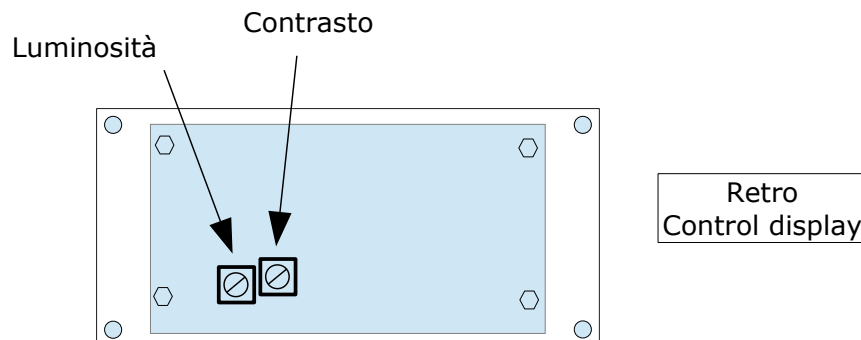
NOTES:

- The main menus are Menu 1 and menu 2, when the Powerblock S-150 is turned off, when the active menu is turned back on it will be the one with which it was turned off.
- The undervoltage protection, if active, makes an integration of the input voltage, if this integration detects that the voltage is below 10.5V for more than a certain time, the display will show the inscription "WARNING UNDER VOLTAGE", if this condition exceeds a certain time, the S-150 powerblock will deactivate the remotes determining the shutdown of all connected electronics asking to check the condition of the battery. To restore the system, simply press and hold the button for a few seconds or turn the Powerblock S-150 off and on again.



Display adjustment:

To better integrate the display, so that it does not bother driving (if it is installed on the dashboard), it is possible to adjust the brightness and contrast. To adjust it, simply act on the trimmers on the back of the display.



IMPORTANT!

The display is made to be recessed so the back is "exposed", DO NOT connect the display to the Powerblock until it is installed correctly.

Create a "clean" space around the display absolutely avoiding that metal and / or conductive parts touch the display boards.

Installation Notes

**Proper installation ensures better performance,
follow these tips in the assembly phase.**

- For power connections, only standard cables with suitable and protected sections in the engine compartment are used. The cables for car-audio applications are very flexible so they can be easily installed.
- Carefully take care of the laying of the cables and operate in such a way as to follow different paths to the signal cables from power ones.
- Secure the Powerblock S-150 securely to avoid its movement and subsequent movement.
- "tugging" of cables.
- A well-kept and equipped system may involve the recessing of various devices, if this happens, ensure adequate ventilation of the place where the amplifiers are installed,
- perhaps with the help of forced ventilation managed by the Powerblock S-150 to circulate the air within the various compartments.
- It is essential to carefully manage the display, carefully avoid that the cards placed behind it do not come into contact with any type of conductive material.
- The temperature probes, if used, must be positioned in the most critical points from the thermal point of view of the audio system, so as to be able to monitor the temperature and, if necessary, place a fan that will be activated at the set temperature (managed by the Powerblock S-150)
- Each power device has 2 dedicated fuses, if the required current is more than 40A it is sufficient to put both fuses to reach the required flow rate. As an example, if we need a 60A fuse we can put 2 fuses of 30A, it is important that both fuses are of equal capacity.

Diagnostic

Under normal conditions Powerblock S-150 shows the display one of the menus described in the paragraph "LCD Display Setting", if anomalies occur refer to this chapter.

PROBLEM	PROBABLE CAUSE
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> !!! WARNING !!! UNDERVOLTAGE </div>	DISPLAY: The voltage at the power terminals of the Powerblock S-150 is too low. Check the battery status (voltage). Check the power wiring.
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> !!! WARNING !!! OVER Temperature </div>	DISPLAY: Powerblock S-150 has exceeded the maximum operating temperature, wait for the temperature to drop and it will reset. If this happens too frequently, check the installation and ensure better ventilation.
Powerblock S-150 does not turn on.	Check that the wiring is correct and that the power reaches the terminals of the Powerblock S-150. If the problem persists probably the internal fuses are faulty, this type of problem must be solved by the authorized repair center. If you want to operate independently to the replacement of internal fuses it is necessary to perform these operations: <ul style="list-style-type: none"> – Disconnect the amplifier completely wait 10 minutes – Remove the 4 screws on the sides and lift the lid – Replace fuses with identical flow rate This operation is not authorized, so it is at the user's risk and compromises the warranty of the product.
One or more LEDs is illuminated in fuxia and some devices do not work.	The fuxia-colored LED indicates that the relative fuse is missing or broken. If it is interrupted, check that the user is working and that the sizing of the fuse is correct.



**This device is designed to operate only at 12V obtained from the car battery,
don't try to power it with 220VAC!**

**Install the device solidly, so as not to affect the driver's driving
Do not place the device in very hot places (such as the engine compartment).**

Make sure that the installation location is not subject to high humidity and/or splashing water.

Make solid and safe connections, using only cables of adequate section and type.

It is absolutely essential to install a fuse of adequate value near the accumulator (battery)..

**In the installation/uninstallation and maintenance phase it is absolutely necessary
remove the fuse placed near the accumulator (battery).**

**If the device suffers strong shocks such as to visibly damage the chassis
have it viewed by the service center or by a professional installer.**

**Keep the device clean and do not obstruct the normal ventilation of the chassis,
for cleaning do not use aggressive detergents.**

**The maintenance allowed to the user are the calibration and replacement of the fuse with identical
characteristics,
(to be performed as described in the paragraph "Diagnostics").**

Product Warranty

Audio Solution covers this product under warranty for a period of two (2) years, the retailer's receipt will prevail.

In the event of malfunctions due to construction defects, the device will be repaired by Audio Solution (or delegated) at no cost to the customer, who will only be responsible for shipping costs.

It is essential, to take advantage of the warranty, that the product is returned to your retailer with the receipt or invoice proving the date of purchase.

Il prodotto che verrà ritornato senza specificazioni e/o richiesta di preventivo alla Audio Solution, verrà riparato in ogni caso, addebitando il costo nel caso la garanzia risulti scoperta.

The warranty is not valid in the following cases:

- The product is damaged by incorrect use.
- The product is subject to accident or altered.
- The product has not been repaired by Audio Solution or delegates.
- The product was connected/installed incorrectly.
- The product was intended for the wrong use.



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